

STRUCTURE G-331 (A-G)

Structures G-331 A-G are a series of seven gated culverts that serve as the inflow control structures for Treatment Cell 2 of STA-2. Culverts G-331 A-G each consist of a 66- inch (66”) diameter corrugated metal pipe with a 11-foot x 11-foot headwall fitted with a 66” x 66” slide gate and service platform on its upstream end, and a flared end section on its downstream end.

These structures are located in Palm Beach County and situated generally on and surrounding the former Brown’s Farm Wildlife Management Area and is positioned immediately west of Water Conservation Area 2A.

PURPOSE

G-331 A-G provides inflow to Cell 2 from the Inflow Canal of STA-2. Flows will travel in a southward direction through the Treatment Cell and eventually discharge to the Discharge Canal of the Treatment Cell.

OPERATION

G-331 A-G can be operated manually or remotely via telemetry from the District’s Operations Control Center in West Palm Beach.

FLOOD DISCHARGE CHARACTERISTICS

	<u>Design</u>
Discharge Rate:	212 cfs per structure (1,483 cfs total)
Headwater Elevation:	16.45 ft. NGVD
Tailwater Elevation:	15.46 ft. NGVD
Type Discharge:	controlled submerged
* Design not related to Standard Project Flood	

DESCRIPTION OF STRUCTURE

Type: Reinforced concrete box culverts with upstream control
Number of barrels: 1
Size of barrels: 66” X 66”
Length of barrels: 65" feet each
Invert Elevation (flow line): 6.0 ft. NGVD
Service bridge elevation: 19.0 ft. NGVD

Water level which will by-pass structure: 20 ft. NGVD

Gates:

Number: 1

Type: Hydraflow Model 14-12_

Size: 6.75' X 6.75'

Control: Manual

Lifting Mechanism: - Type hoist, pedestal mounted, screw type, hand wheel operated or telemetry

Date Acceptance into Service: June, 1999

ACCESS: Access to G-331 A-G is from S-6 along the East levee of the Supply Canal. The structures are located between S-6 and S-7.

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level: Remote digital upstream recorder at G-331D.
Remote digital downstream recorder at G-331E

Gate Position Recorder: Remote digital recorders at G-331A through G

DEWATERING FACILITIES (per gate) None